

REMARKS

Claims 1-19 are pending in this application. Claims 9, 10 and 15 stand rejected under 35 U.S.C. § 112. All claims also stand rejected under 35 U.S.C. §102(b) or §103(a). Applicant respectfully requests reconsideration of these rejections.

At the outset, Claim 1 has been amended to include the limitation that the device is sized and shaped to be housed in a sample holder of a light measuring apparatus. Support for this amendment can be found in the description (see for example page 5 first paragraph). New claim 20 has been added and support for this claim can be found on page 10, lines 1-8. No new matter has been added.

35 U.S.C. § 112 Rejections

Claim 9 has been canceled and the dependency of claims 10 and 15 has been amended to claims 1 and 13, respectively. Applicant therefore submits that the §112 rejections should be withdrawn.

Prior Art Rejections

**Claims 1, 9 and 10 are rejected under 35 U.S.C. § 102(b) as being anticipated by DE 3816489 A1 to Frank.** Claim 1 as amended includes the limitation that the device is sized and shaped to be housed in a sample holder of a light measuring apparatus. Frank teaches a calibration method in which a beta light 100 is accommodated in a suitable holder 9b and takes the place of the light guide 9 prior to the start of a test series (page 6, lines 35-36 and page 7, lines 2-4). The light emitted from the beta light is detected by the photomultiplier and can then

be used to calibrate the optical instrument. It is not therefore possible to check the calibration of the machine whilst measuring test samples. As mentioned in the present application (see page 2, last paragraph), when testing must be stopped during calibration of the apparatus to insert the calibration device into the apparatus, it is not possible to check the calibration of the machine whilst measuring test samples. There is thus a risk that the accuracy of the apparatus may decrease between calibrations, i.e. during testing, so that test results may be less accurate than is desirable.

In contrast to this, the device recited in claim 1 is small enough to be housed in a sample holder of the scientific apparatus (page 5, lines 1-3). This feature advantageously enables the luminescent device to be left in the apparatus during use, even when other wells contain test materials. The calibration of the scientific apparatus can therefore be checked for accuracy at each instance of use of the luminescent device of the present invention (page 5, lines 15-23).

There is no indication or suggestion that the device disclosed in Frank is shaped or sized for housing in a sample holder. Indeed, the light guide 9 that is replaced by the beta light device 100 is positioned far from the sample holder, as seen in Figure 1 of Frank. Therefore, Frank's device cannot be used to check scientific apparatus for accuracy at each instance of use of the luminescent device of the present invention, because the calibration must be performed prior to the start of a test series (page 7, line 2). Claim 1, as amended, as well as all claims dependent thereon, is therefore novel and inventive over Frank.

**Claims 2, 16 and 17 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Frank.** The Examiner states that claims 2, 16 and 17 are not inventive over Frank because it would be obvious to place the light source in the sample holder of a light measuring device. Applicant respectfully disagrees with the Examiner. Claims 2, 16 and 17 relate to an apparatus comprising the novel and inventive luminescent device of independent claim 1 (discussed above). Thus, by dependency and for the reasons stated above, the apparatus of claims 2, 16 and 17 is novel and inventive.

**Claims 3, 6 and 8 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Frank in view of U.S. Patent No. 6,390,529 to Bingle.** Claims 3, 6 and 8 depend from claim 1 and are believed patentable over Frank for the reasons stated above with respect to claim 1. Bingle does not overcome the deficiencies of the Frank disclosure as it does not disclose, teach or suggest a device that is sized and shaped to be housed in a sample holder of light measuring apparatus as recited in claim 1. It should be noted that the Examiner did not indicate any disclosure in Bingle that would be relevant to these claims.

**Claim 4 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Frank in view of U.S. Patent No. 3,566,125 to Linhart.** Claim 4 depends from claim 1 and is believed patentable over Frank for the reasons stated above with respect to claim 1. Linhart does not overcome the deficiencies of the Frank disclosure as it does not disclose, teach or suggest a device that is sized and shaped to be housed in a sample holder of light measuring apparatus as

recited in claim 1. Instead, the Examiner cites Linhart only for teaching that other gaseous light source encapsulation schemes are well known in the art.

**Claims 5 and 12 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Frank in view of U.S. Patent No. 6,549,279 to Adams.** Claims 5 and 12 depend from claim 1 and are believed patentable over Frank for the reasons stated above with respect to claim 1. Adams does not overcome the deficiencies of the Frank disclosure. The Examiner cites Adams only for disclosing neutral density filters in conjunction with standard light sources used for calibration purposes. However, Adams describes the use of filters to calibrate a spectrometer before use in analysis of surface polishing and does not describe a filter as part of an outer casing for a device, as recited in amended claim 1, which can be placed in a sample holder of an optical instrument. The person skilled in the art, having read Frank, would not have read Adams, because Adams describes a different device used in a different technical field.

**Claim 7 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Frank in view of U.S. Patent No. 6,390,529 to Bingle.** Claim 7 depends from claim 1 and is believed patentable over Frank for the reasons stated above with respect to claim 1. Bingle does not overcome the deficiencies of the Frank disclosure as it does not disclose, teach or suggest a device that is sized and shaped to be housed in a sample holder of light measuring apparatus as recited in claim 1. Instead, the Examiner cites Bingle only for disclosure that GTLS devices are available in a variety of sizes, shapes and colors.

**Claim 8 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Frank in view of U.S. Patent No. 5,453,829 to Remer.** Claim 8 depends from claim 1 and is believed patentable over Frank for the reasons stated above with respect to claim 1. Remer does not overcome the deficiencies of the Frank disclosure as it does not disclose, teach or suggest a device that is sized and shaped to be housed in a sample holder of light measuring apparatus as recited in claim 1. Instead, the Examiner asserts that the inclusion of a scale bar or a graticule is routine in the art for use in optical instruments and cites Remer as an example of this. First, this feature is not recited in claim 8. Instead, it is recited in claim 11. Applicant assumes the Examiner intended to reject claim 11 instead of claim 8 on this ground. Further, the Examiner has not cited any document that discloses or suggests the inclusion of a graticule on a calibration device and therefore this feature is novel and inventive over Remer either alone or in combination with Frank.

**Claims 13-15 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Frank in view of U.S. Patent Publication No. 2002/0096667 to Leveille.** Claims 13-15 each depend from claim 1 and are believed patentable over Frank for the reasons stated above with respect to claim 1. Leveille does not overcome the deficiencies of the Frank disclosure, as it does not disclose, teach or suggest a device that is sized and shaped to be housed in a sample holder of light measuring apparatus as recited in claim 1. The Examiner cites Leveille only for disclosing calibration light kits including calibration sources. Therefore, claims 13-15 are believed patentable.

**Claims 18-19 are rejected under 35 U.S.C. § 103(a) as being unpatentable over**

**Frank in view of U.S. Patent No. 5,321,261 to Valenta.** Claims 18-19 each depend from claim 1 and are believed patentable over Frank for the reasons stated above with respect to claim 1. Valenta does not overcome the deficiencies of the Frank disclosure, as it does not disclose, teach or suggest a device that is sized and shaped to be housed in a sample holder of light measuring apparatus as recited in claim 1. Instead, the Examiner cites Valenta only for disclosing a normalization technique for an optical measuring device wherein multiple samples are arranged in a sample microplate and includes a calibration of the apparatus using self-luminous calibration light standards.

In view of the foregoing, Applicant submits that claims 1-8 and 20 are patentable over the cited references. Should the Examiner believe there any issues left to be resolved, Applicant requests that the Examiner telephone the undersigned.

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Respectfully submitted,

**Customer No. 44702**  
**OSTRAGER CHONG FLAHERTY**  
**& BROITMAN P.C.**

By: /joshua s. broitman/  
Joshua S. Broitman  
Reg. No. 38,006

570 Lexington Avenue, 17<sup>th</sup> Floor  
New York, New York 10022-6894  
(212) 681-0600  
Attorneys for Applicant